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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,339	12/15/2003	Rajesh K. Saini	2001-IP-005484U1P1	3700

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Robert A. Kent
Halliburton Energy Services
2600 S. 2nd Street
Duncan, OK 73536

EXAMINER	
TSOY, ELENA	

ART UNIT	PAPER NUMBER
1762	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/736,339	SAINI ET AL.	
	Examiner	Art Unit	
	Elena Tsoy	1762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41* is/are pending in the application.

4a) Of the above claim(s) *1-6 and 20-41* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *See Continuation Sheet*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :3/06,12/05,10/05,8/05,7/05,6/05,4/05,3/05,12/04,11/04,7/04,5/04,12/03.

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-6, drawn to a method of creating particulates coated with acid-releasing degradable material on-the-fly, classified in class 427, subclass 212.

II. Claims 7-19, drawn to a method of degrading filter cake in a subterranean formation, classified in class 427, subclass 212.

III. Claims 20-25, drawn to a method of using a portion of a proppant pack to degrade filter cake, classified in class 166, subclass 278.

IV. Claims 26-33, drawn to a gravel pack comprising gravel particles, classified in class 428, subclass 357.

V. Claims 34-41, drawn to a proppant pack, classified in class 428, subclass 357.

Distinctness

The inventions are distinct, each from the other because:

Inventions I and IV/V are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process such as coating in a fluidized bed.

Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation,

and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions they are not disclosed as capable of use together and they have different designs, modes of operation, and effects because inventions relate to different processes.

Inventions IV and V are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different designs, modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case, the different inventions they are not disclosed as capable of use together and they have different designs, modes of operation, and effects because inventions relate to different products.

Inventions II/III and I are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination may use particles coated off-site. The subcombination has separate utility for making particles for the use as additive to acid releasing soils.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Groups II-V, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Robert A. Kent on June 8, 2007 a provisional election was made without traverse to prosecute the invention of Group II, claims 7-19. Affirmation of this election must be made by applicant in replying to this Office action. Claims

1-6, and 20-41 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 7-19 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 8-13 of U.S. Patent No. 7,080,688 in view of Ellis et al (US 5604184). Patent '688 disclose all claimed limitations except for coating gravel particles on-the-fly. However, Murphey et al teach that particulate material utilized in the performance of gravel packing procedures or as a proppant material in fracturing treatments (See column 9, lines 62-68) can be coated rapidly and continuously by admixing in a stream (on-the-fly) (See column

2, lines 37-42) instead of batch mixing which requires a period of time, e.g., at least about 15 minutes to several hours to obtain satisfactory coating of the particulate material before the slurry may be introduced into a placement zone (See column 2, lines 17-23). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have coated gravel in Patent '688 on-the-fly with the expectation of providing the desired rapid and continuous coating, as taught by Murphey et al.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 7-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al (US 6,209,643) in view of Free et al (US 3960736).

Nguyen et al disclose a method of introducing treatment chemicals and treating a subterranean formation comprising providing a fluid suspension including a mixture of particulate material such as gravel packing material (See column 8, lines 20-21) in said fluid suspension, a solution of a tackifying compound in a solvent (See column 5, lines 10-13) such as **alcohol** (See column 4, lines 55-56) and a treatment chemical whereby treatment chemical contacted by said tackifying compound and at least partially coated therewith whereby the tackifying compound **retards** release of said treatment chemical in said fluid suspension; and depositing the coated particulates in the subterranean formation whereby coated treatment chemical is subsequently released within the subterranean formation(i.e., the tackifying

compound is *degradable*) to treat at the portion of formation in contact therewith (See column 12, lines 33-55). The tackifying compound includes **any** compound (See column 5, lines 11-12), e.g. a polyester (See column 12, line 58); and treatment chemical include gel breakers such as oxidizers, enzymes or hydrolyzable esters that are capable of producing a **pH change** in the fluid (See column 4, lines 40-42). The tackifying compound is admixed in an amount of 0.1-3.0 % by weight of the coated particles (See column 6, lines 14-17).

As to claimed solvent, obviously, one of ordinary skill in the art would use a conventional alcohol such as methanol and isopropanol as a solvent in Nguyen et al because Nguyen et al does not limit their teaching to particular alcohols.

Nguyen et al fail to teach that hydrolyzable esters are capable of gel breaking by releasing acid.

Free et al teach that an organic ester which hydrolyzes over a certain period of time to release an acid may be used as a breaker of a viscous aqueous solution for the use as a fracturing fluid, as a drilling fluid (See column 1, lines 36-46).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a hydrolysable ester that releases an acid as a breaker chemical in Nguyen et al since Free et al teach that an organic ester which hydrolyzes over a certain period of time to release an acid is suitable for the use as a breaker of a viscous aqueous fracturing fluid, or a drilling fluid.

It is the Examiner's position that the hydrolysable ester of Free et al in a coated gravel would slowly degrade a filter cake when formed as a gravel pack next to the filter cake because it releases acid. Moreover, it is well settled that the fact that applicant has recognized another

advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

As to claims 13 and 19, plasticizers were not addressed because they are optional.

5. Claims 7-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al in view of Free et al, further in view of Lee et al (US 6,817,414).

Nguyen et al in view of Free et al are applied here for the same reasons as above. Nguyen et al in view of Free et al fail to teach that treatment chemicals that **release acid** can be used to degrade a filter cake.

Lee et al teach that gravel having coating comprising chemicals that slowly hydrolyze and release an acidic by-product (See column 3, lines 6-15), e.g. lactic polymer (See column 3, lines 20-28) can be used to degrade a filter cake (See column 2, lines 52-63).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used acid releasing treatment chemicals in coated gravel of Nguyen et al in view of Free et al for degrading a filter cake since Lee et al teach that chemicals that slowly hydrolyze and release an acidic by-product are suitable to be used to degrade a filter cake.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Thursday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elena Tsoy
Primary Examiner
Art Unit 1762

June 8, 2007